

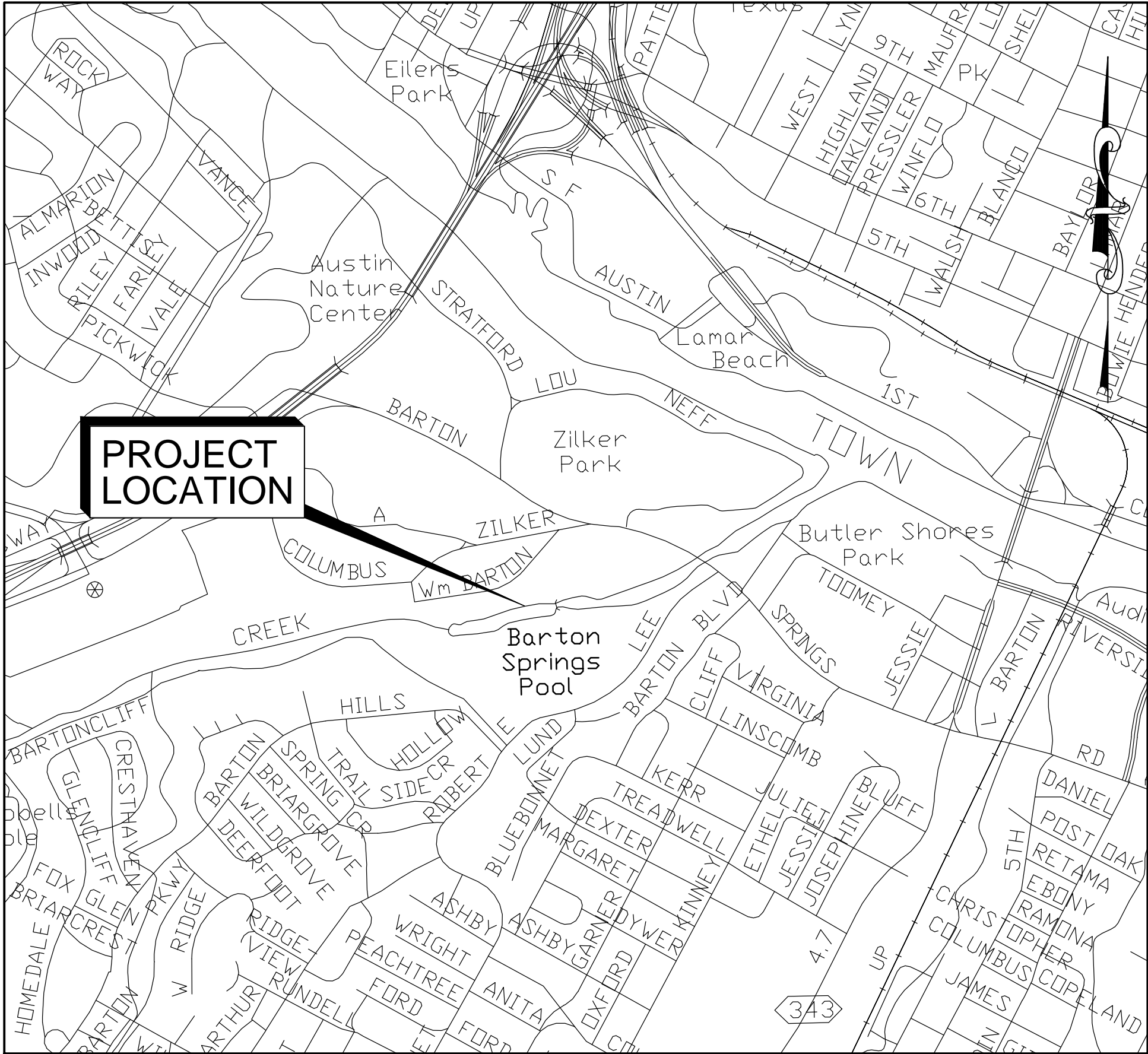


Austin City Council:

Lee Leffingwell - Mayor
Sheryl Cole - Mayor Pro Tem
Chris Riley
Mike Martinez
Kathie Tovo
Laura Morrison
Bill Spelman

Austin City Manager:

Marc A. Ott



VICINITY MAP

1"=2000'
COA GRID: H22
MAPSCO #: 584Y

NOTES:

1. THIS PROJECT IS LOCATED IN THE BARTON CREEK WATERSHED.
2. THIS PROJECT IS LOCATED IN THE BARTON SPRINGS ZONE.
3. THIS PROJECT IS PARTIALLY LOCATED OVER THE EDWARDS AQUIFER RECHARGE ZONE.
4. THIS PROJECT IS LOCATED WITHIN THE 100-YEAR FLOODPLAIN PER FEMA MAP NO. 48453C0445H.
5. THIS PROJECT IS SUBJECT TO THE VOID AND WATER FLOW MITIGATION RULE (ECM 1.12.0) AND COA STANDARD SPECIFICATION ITEM 868S. ALL TRENCHING GREATER THAN 5 FT DEEP MUST BE INSPECTED BY A GEOLOGIST (TEXAS P.G. OR A GEOLOGISTS REPRESENTATIVE).
6. THE PROJECT SITE IS ZONED PUBLIC-P AND PUBLIC-HISTORIC P-H.
7. AN AMENDMENT TO THE SAVE OUR SPRINGS ORDINANCE WILL BE REQUIRED TO ALLOW CONSTRUCTION OF THIS PROJECT WITHIN THE BARTON SPRINGS ZONE.
8. CALL ONE CALL CENTER (1-800-344-8377) FOR UTILITY LOCATIONS PRIOR TO ANY WORK IN CITY EASEMENTS OR STREETS RIGHT-OF-WAY.
9. NOTIFY THE PUBLIC WORKS DEPARTMENT, IN WRITING, TWENTY FOUR (24) HOURS PRIOR TO STARTING CONSTRUCTION OR CLEARING OPERATIONS.
10. RELEASE OF THE APPLICATION DOES NOT CONSTITUTE A VERIFICATION OF ALL DATA, INFORMATION AND CALCULATIONS SUPPLIED BY THE APPLICANT. THE ENGINEER OF RECORD IS SOLELY RESPONSIBLE FOR THE COMPLETENESS, ACCURACY, AND ADEQUACY OF HIS/HER SUBMITTAL, WHETHER OR NOT THE APPLICATION IS REVIEWED FOR CODE COMPLIANCE BY THE CITY ENGINEERS.

Construction Drawings for

ELIZA SPRING
OUTLET DAYLIGHTING

BARTON SPRINGS POOL AREA

C.I.P. No. 5282.074

SITE ADDRESS: 2201 Barton Springs Rd
Austin, TX 78746

HDR Project No. Austin, Texas
000000000220162 JANUARY 2014

THIS DOCUMENT IS
RELEASED FOR THE
PURPOSE OF REVIEW
UNDER THE AUTHORITY OF
SCOTT M. MUCHARD
TEXAS P.E. NO. 89409
DATE: JANUARY 24, 2014

IT IS NOT TO BE USED
FOR CONSTRUCTION OR
ANY OTHER PURPOSE.

ISSUED FOR 60% REVIEW
JANUARY 24, 2014

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5	X1.2	Amphitheater Masonry Demolition Elevation
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No.	Landscape	
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HDR Engineering, Inc.
Firm Registration No. 754
4401 West Gate Blvd., Ste 400
Austin,Tx 78745
Ph: (512)912-5100
Fax: (512)912-5158

OWNER:
City of Austin

MANAGING DEPARTMENT CONTACT:
Liza Colucci, Project Sponsor
WPD
505 Barton Springs Road
11th Floor
Austin, TX 78704
(512) 974-2669 Fax: (512) 974-2846

SPONSORING DEPARTMENT CONTACT:
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505 Barton Springs Road
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Austin, TX 78704
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ENGINEER OF RECORD:
Scott M. Muchard P.E., C.F.M.
HDR Engineering, Inc.
4401 West Gate Blvd., Ste. 400
Austin, Texas 78745
Phone: 512.912.5100
Fax: 512.912.5158

Sponsoring Department:

Watershed Protection Department Date

Managing Department:

Watershed Protection Department Date

Submitted By:

HDR Engineering Date

Reviewed By:

For Director, Planning
and Development Review Department Date

SP-####-####

Site Plan/ Development Permit Number Date

SUBMITTAL DATE: XXXXXXXXXX

SHEET 1 OF 16

Number	Description	Revised (R) Add (A) Void (V) Sheet No. s	Total # Sheets in Plan Set	Net Change Imp. Cover (Sq. Ft.)	Total Site Imp Cover (Sq.Ft.)	City Of Austin Approval Date	Date Imaged

GENERAL CONSTRUCTION NOTES

1. ALL RESPONSIBILITY FOR THE ADEQUACY OF THESE PLANS REMAINS WITH THE ENGINEER WHO PREPARED THEM. IN REVIEWING THESE PLANS, THE CITY OF AUSTIN MUST RELY ON THE ADEQUACY OF THE WORK OF THE DESIGN ENGINEER.
2. CONTRACTOR SHALL CALL THE ONE CALL CENTER (1-800-344-8377) FOR UTILITY LOCATIONS PRIOR TO ANY WORK IN CITY EASEMENTS OR STREET R.O.W.
3. CONTRACTOR SHALL NOTIFY THE CONSTRUCTION INSPECTION DIVISION OF THE CITY'S ONE STOP SHOP (OSS) AT 974-6360 OR 974-7034 AT LEAST 24 HOURS PRIOR TO THE INSTALLATION OF ANY DRAINAGE FACILITY WITHIN A DRAINAGE EASEMENT OR STREET R.O.W. THE METHOD OF PLACEMENT AND COMPACTION OF BACKFILL IN THE CITY'S R.O.W. MUST BE APPROVED PRIOR TO THE START OF BACKFILL OPERATIONS.
4. ALL CONSTRUCTION OPERATIONS SHALL BE ACCOMPLISHED IN ACCORDANCE WITH APPLICABLE REGULATIONS OF THE U.S. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION. (OSHA STANDARDS MAY BE PURCHASED FROM THE GOVERNMENT PRINTING OFFICE; INFORMATION AND RELATED REFERENCE MATERIALS MAY BE PURCHASED FROM OSHA, 611 EAST 6TH STREET, AUSTIN TEXAS.)
5. ALL SITE WORK MUST ALSO COMPLY WITH ENVIRONMENTAL REQUIREMENTS.
6. UPON COMPLETION OF THE PROPOSED SITE IMPROVEMENTS AND PRIOR TO THE FOLLOWING, THE ENGINEER SHALL CERTIFY IN WRITING THAT THE PROPOSED DRAINAGE, FILTRATION AND DETENTION FACILITIES WERE CONSTRUCTED IN CONFORMANCE WITH THE APPROVED PLANS.

SPECIAL CONSTRUCTION NOTES

1. BLASTING WITHIN THE PROJECT AREA WILL NOT BE ALLOWED WITHOUT A SEPARATE BLASTING PERMIT.
2. THE CONTRACTOR SHALL FURNISH, INSTALL AND MAINTAIN BARRICADES, WARNING SIGNS, FLASHERS AND OTHER DEVICES OF THE TYPE AND SIZE AS INDICATED IN THE LATEST EDITION OF THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, OR AS DIRECTED BY THE ENGINEER.
3. THE CONTRACTOR SHALL MAINTAIN AT LEAST ONE DUST-FREE LANE FOR TRAFFIC WITH FLAGMEN DURING CONSTRUCTION ACTIVITIES AND TWO LANES AT ALL OTHER TIMES. ACCESS TO CONTIGUOUS PRIVATE PROPERTIES SHALL BE MAINTAINED AT ALL TIMES.
4. ALL STRUCTURAL CONCRETE SHALL BE CLASS "A" (5 SACK, 25-8-36100 PSI @ 28 DAYS) AND ALL REINFORCING STEEL SHALL BE GRADE SIXTY, UNLESS OTHERWISE NOTED.
5. THE CONTRACTOR SHALL NOT DISPOSE OF SURPLUS EXCAVATED MATERIAL FROM THE SITE WITHOUT NOTIFYING THE ENVIRONMENTAL INSPECTOR. AT 974-2278, 48 HOURS PRIOR TO THE REMOVAL. THIS NOTIFICATION SHALL INCLUDE THE DISPOSAL LOCATION AND A COPY OF THE PERMIT ISSUED TO RECEIVE THE MATERIAL, IF APPLICABLE.
6. UTILITIES SHOWN REFLECT THE BEST INFORMATION AVAILABLE AT THE TIME THE PROJECT WAS SURVEYED. UTILITY RELOCATION WORK HAS BEEN OR WILL BE ACCOMPLISHED TO CLEAR THE WORK SPACE. THESE RELOCATIONS ARE NOT REFLECTED ON THESE DRAWINGS. FOR EXACT LOCATIONS CALL 472-2822, 48 HOURS PRIOR TO BEGINNING EXCAVATION.
7. ALL STORM SEWER PIPE SHALL BE RCP, CLASS III, WITH CLASS B BEDDING, UNLESS OTHERWISE NOTED.
8. SIGNS IN THE WAY OF CONSTRUCTION SHALL BE REMOVED AND RELOCATED AS SOON AS POSSIBLE. ALL TRAFFIC CONTROL SIGNS, INCLUDING STOP AND STREET-NAME SIGNS, SHALL NOT BE REMOVED OR RELOCATED WITHOUT THE APPROVAL OF THE PROJECT INSPECTOR AND THE TRANSPORTATION ENGINEERING DIVISION OF THE DEPARTMENT OF TRANSPORTATION. THIS WORK SHALL BE SUBSIDIARY TO OTHER BID ITEMS.
9. ALL SITE WORK MUST COMPLY WITH THE ENVIRONMENTAL REQUIREMENTS.
10. THE CONTRACTOR SHALL ERECT AND MAINTAIN A FILTER FABRIC FENCE AT LOCATIONS SHOWN ON THE PLANS AND ANY OTHER LOCATIONS DESIGNATED BY THE ENGINEER. PAYMENT WILL BE MADE UNDER ITEM NO. 620 FILTER FABRIC FENCE.
11. ANY UTILITY METERS IN THE WAY OF THE CONSTRUCTION WILL BE RELOCATED OUTSIDE OF THE PROPOSED CONSTRUCTION AREA BY THE UTILITY OWNER UNLESS SUCH WORK AFFECTING THOSE METERS IS INCLUDED IN THE CONTRACT.
12. ANY AREAS TO RECEIVE TRANSITION PAVEMENT SHALL BE CONSTRUCTED WITH THE SAME TYPICAL SECTION AS THE ADJACENT NEW CONSTRUCTION.
13. ANY EXISTING SIDEWALKS, CURBS OR DRIVEWAYS DISTURBED BY THE CONSTRUCTION SHALL BE REMOVED AND RESTORED WITH SURFACE MATERIALS EQUAL TO OR BETTER THAN THE ORIGINAL.
14. THE REMOVAL OF EXISTING DRIVEWAY PIPE CULVERTS, RIPRAP AND HEADWALLS IN THE WAY OF CONSTRUCTION WILL NOT BE PAID FOR DIRECTLY, BUT SHALL BE SUBSIDIARY TO OTHER BID ITEMS.
15. THE RATE OF HYDRATED LIME APPLICATION USED TO DETERMINE THE QUANTITIES FOR THIS PROJECT IS BY WEIGHT.
16. IN AREAS WHERE EXISTING CURBS AND GUTTERS ARE TO REMAIN, THE OLD PAVING AND BASE MUST BE REMOVED AND THE NEW BASE AND PAVING PLACED AND COMPACTED SO AS NOT TO DISTURB EXISTING CURBS AND GUTTERS.

DEVELOPER INFORMATION

OWNER: LIZA COLUCCI, CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT
ADDRESS: 505 BARTON SPRINGS ROAD, AUSTIN, TX 78701
PHONE #: 512-974-2669
OWNER'S REPRESENTATIVE RESPONSIBLE FOR PLAN ALTERATIONS: SCOTT M. MUCHARD, P.E., HDR ENGINEERING, INC.
PHONE#: 512-912-5100
PERSON OR FIRM RESPONSIBLE FOR EROSION/SEDIMENTATION CONTROL MAINTENANCE:
PHONE#: _____
PERSON OR FIRM RESPONSIBLE FOR TREE/NATURAL AREA PROTECTION MAINTENANCE:
PHONE#: _____

AMERICANS WITH DISABILITIES ACT

THE CITY OF AUSTIN HAS REVIEWED THIS PLAN FOR COMPLIANCE WITH CITY DEVELOPMENT REGULATIONS ONLY. THE APPLICANT, PROPERTY OWNER, AND OCCUPANT OF THE PREMISES ARE RESPONSIBLE FOR DETERMINING WHETHER THE PLAN COMPLIES WITH ALL OTHER LAWS, REGULATIONS, AND RESTRICTIONS WHICH MAY BE APPLICABLE TO THE PROPERTY AND ITS USE.



HDR Engineering, Inc.
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PHONE# (512) 912-5100
FAX# (512) 912-5158

A	1/24/2014	60% DRAFT FOR REVIEW
ISSUE	DATE	DESCRIPTION

PROJECT MANAGER	S. MUCHARD
DESIGNED BY	E. STEWART
DRAWN BY	C. AMARAL
CHECKED BY	C. PARKER
DATE	JANUARY 2014
PROJECT NUMBER	220162

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TEXAS P.E. NO.89409
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ELIZA SPRING
OUTLET DAYLIGHTING

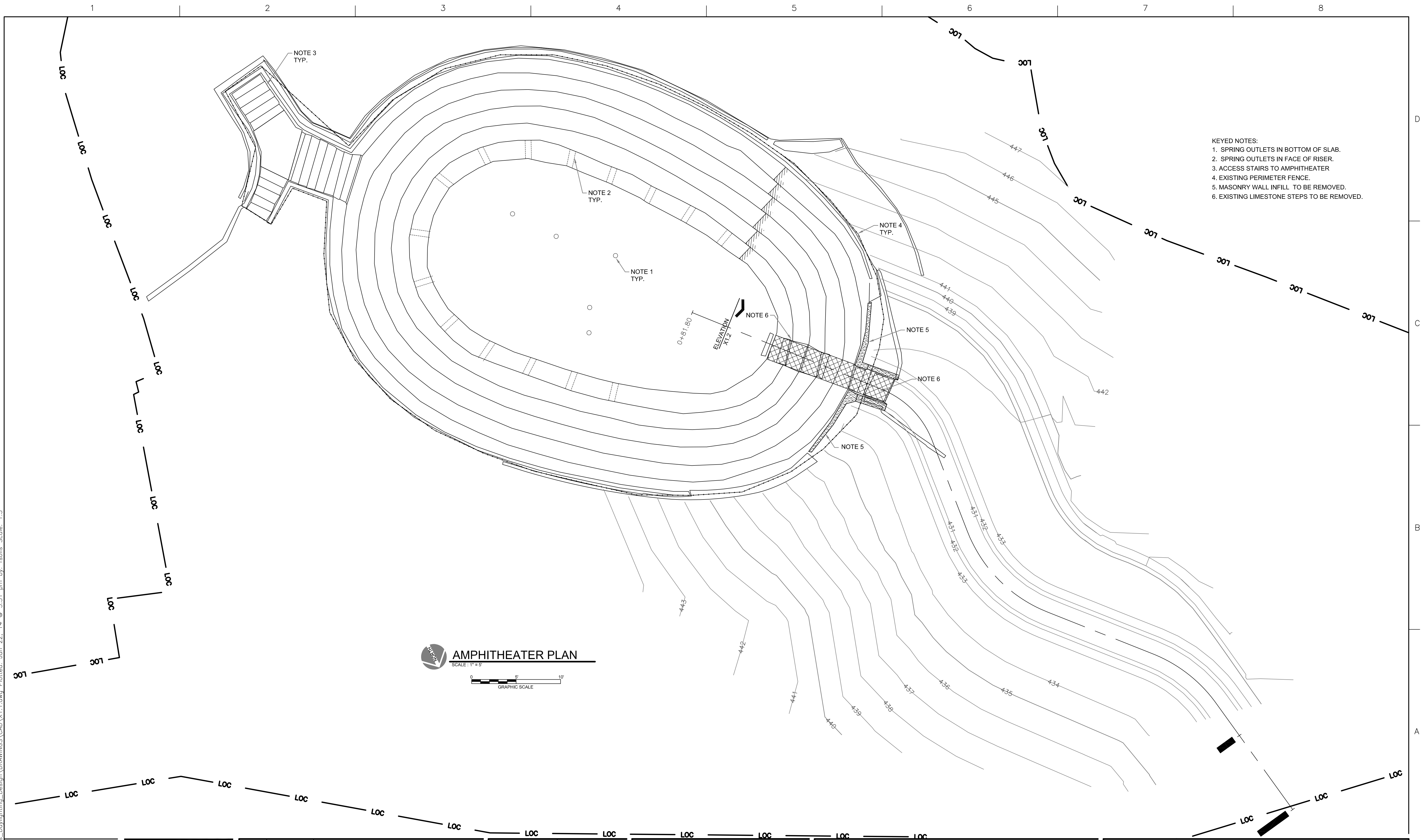
Austin, Texas

GENERAL NOTES



FILENAME	G1.2.DWG
SCALE	NONE

SHEET
G1.2



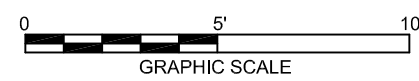
KEYED NOTES:

1. SPRING OUTLETS IN BOTTOM OF SLAB.
2. SPRING OUTLETS IN FACE OF RISER.
3. ACCESS STAIRS TO AMPHITHEATER
4. EXISTING PERIMETER FENCE.
5. MASONRY WALL INFILL TO BE REMOVED.
6. EXISTING LIMESTONE STEPS TO BE REMOVED.



AMPHITHEATER PLAN

SCALE : 1" = 5'



Jose I. Guerra, Inc.
Consulting Engineers
2401 South IH-35 Suite 210
Austin, Texas 78741
(512) 445-2090
Structural ♦ Civil ♦ Mechanical ♦ Electrical
TBPE FIRM F-3



HDR Engineering, Inc

-	-	-
ISSUE	DATE	DESCRIPTION

PROJECT MANAGER	JL
DESIGNED BY	JL
DRAWN BY	FS
CHECKED BY	JL
DATE	01-22-14
PROJECT NUMBER	220162

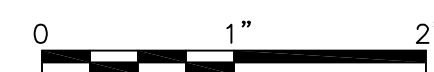
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JOSEPH J. LUKE
#55974
JANUARY 22, 2014

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ELIZA SPRING OUTLET DAYLIGHTING

Austin, Texas



FILENAME	\$FILEABBREV\$
SCALE	AS NOTED

SHEET

X1.1



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ISSUE	DATE	DESCRIPTION

PROJECT MANAGER	S. MUCHARD
DESIGNED BY	—
DRAWN BY	—
CHECKED BY	
DATE	
PROJECT NUMBER	220162

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D. LAUREN ROSS
TEXAS P.E. NO.56647
JANUARY 24, 2014

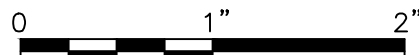
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ELIZA SPRING
OUTLET DAYLIGHTING

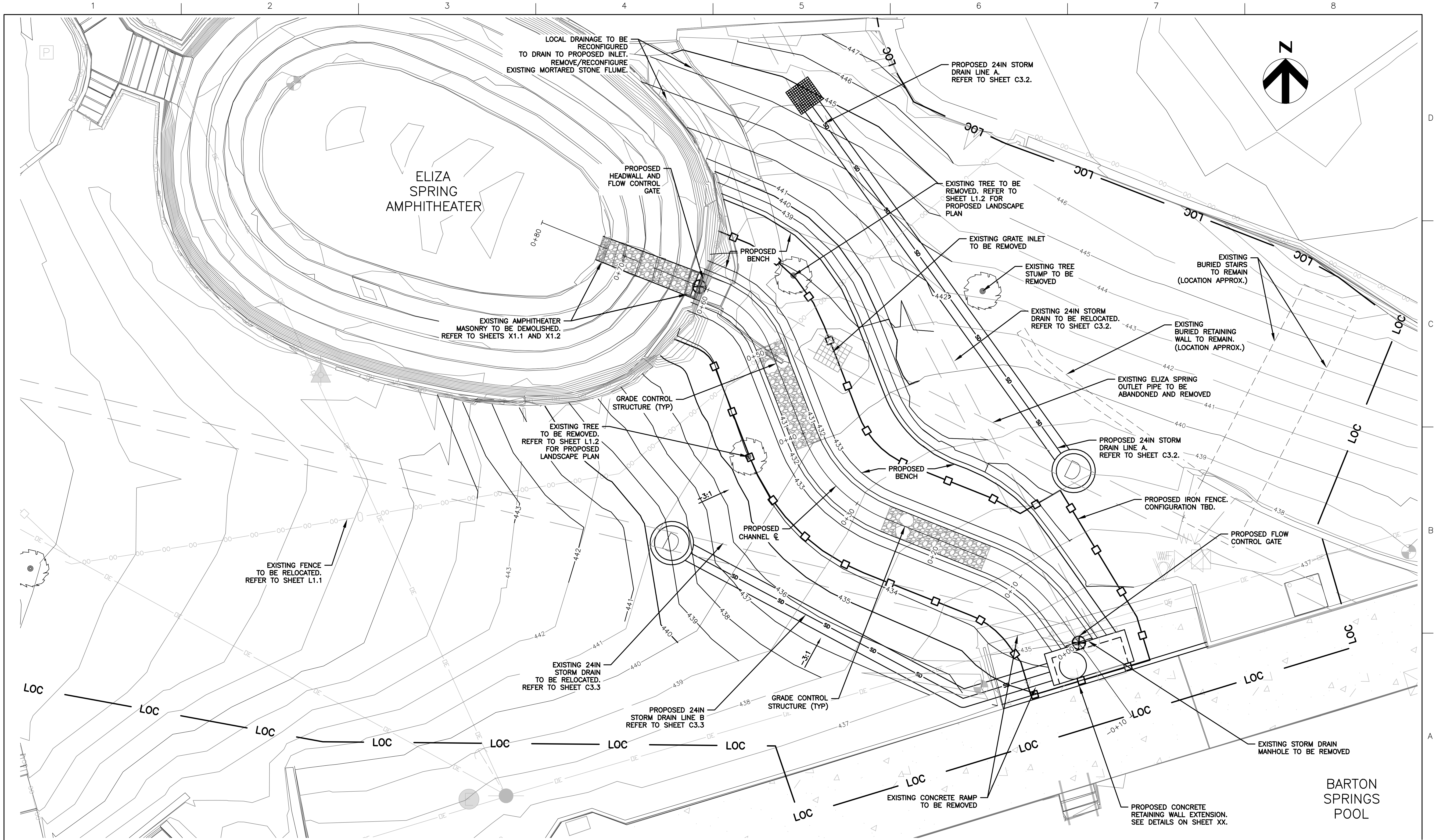
Austin, Texas

EROSION/SEDIMENTATION
CONTROL AND
TREE PROTECTION PLAN



FILENAME	
SCALE	1"=20'

SHEET
C1.1



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PROJECT MANAGER	S. MUCHARD
DESIGNED BY	E. STEWART
DRAWN BY	C. AMARAL
CHECKED BY	C. PARKER
DATE	JANUARY 2014
PROJECT NUMBER	220162

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ELIZA SPRING OUTLET DAYLIGHTING

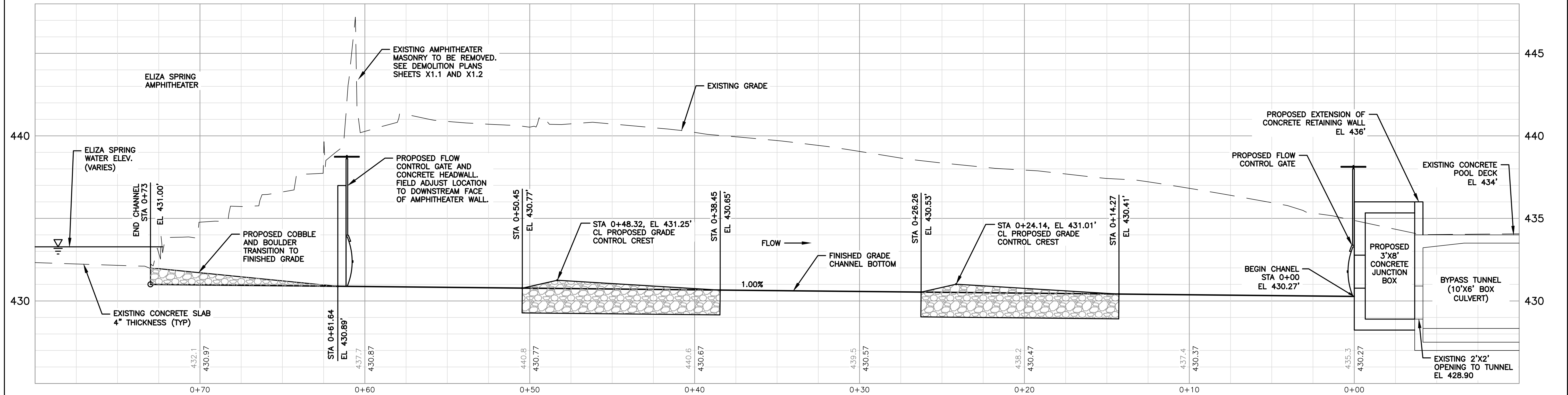
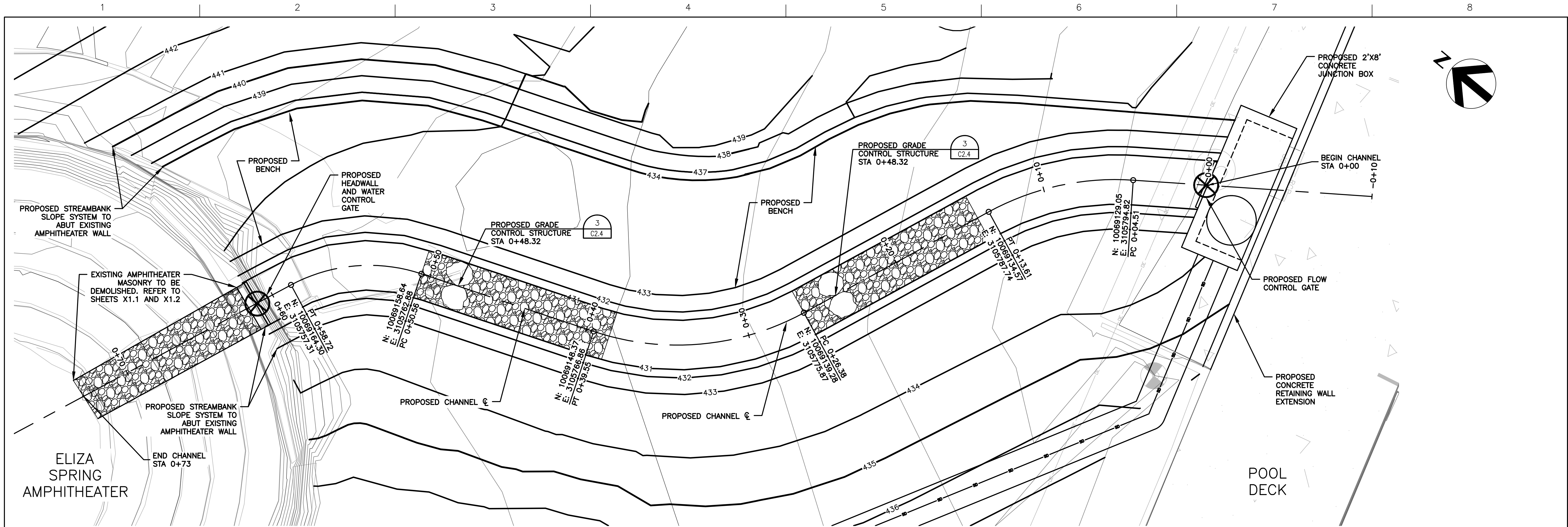
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GENERAL PROJECT LAYOUT

0 1" 2"

FILENAME C2.1.DWG
SCALE 1"=5'

SHEET
C2.1



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ELIZA SPRING OUTLET DAYLIGHTING

Austin, Texas

OUTLET CHANNEL PLAN & PROFILE



FILENAME C2.2.DWG
SCALE 1"=3'

SHEET
C2.2



CONSTRUCTION NOTES:

1. CONTRACTOR IS RESPONSIBLE FOR TEMPORARY STABILITY RELATIVE TO EXCAVATED GEOMETRY AND EROSION CONTROL OF DISTURBED SOIL DUE TO CONSTRUCTION ACTIVITIES.
2. MAJOR EXCAVATION SHALL PRECEDE MSE AND BANK STABILIZATION AND SHALL BE PERFORMED IN ACCORDANCE WITH COA STANDARD SPECIFICATION ITEMS NO. 120S, NO. 132S. EXCAVATION FOR SLOPE SYSTEM CONSTRUCTION SHALL CONSIST OF FINAL SHAPING AND GRADING FOR CONSTRUCTION TO THE DEPTHS, LINES AND GRADES SHOWN ON THE CONSTRUCTION DRAWINGS. CONTRACTOR SHALL BE CAREFUL NOT TO DISTURB SUBGRADE BEYOND THE LINES SHOWN. WHERE AREAS ARE EXCAVATED BELOW THE ALLOWABLE MINUS TOLERANCE LIMIT, THEY SHALL BE BROUGHT TO GRADE BY FILL WITH EARTH SIMILAR TO THE ADJACENT MATERIAL AND COMPACTED TO A DENSITY EQUAL TO THE ADJACENT IN PLACE MATERIAL. THE PREPARED BASE SHALL BE APPROVED BY THE OWNER.
3. THE BASE OF THE SLOPE SHALL BE EXCAVATED AS REQUIRED FOR PLACEMENT OF THE FOOTING ELEMENTS AND/OR BLOCKS. PREPARED SUBGRADE SHALL BE FIRM AND UNYIELDING AND EXHIBIT A RELATIVELY SMOOTH SURFACE CONDITION, FREE FROM OBSTRUCTION, DEBRIS, DEPRESSIONS, EROSION FEATURES, OR VEGETATION. REMOVE ANY IRREGULARITIES SO AS TO ENSURE CONTINUOUS, INTIMATE CONTACT OF THE GEOTEXTILE, BLOCK, AND/OR CONCRETE.
4. CONSTRUCT ALL COMPONENTS OF THE STREAM CHANNEL AND BANK STABILIZATION TO THE LINES AND GRADES SHOWN ON THE DRAWINGS. TOLERANCE IN THE HORIZONTAL PLANE SHALL BE ± 0.3 FT. FINAL ELEVATIONS SHALL BE ± 0.1 FT OF THOSE SHOWN ON THE DRAWINGS. PLACED MATERIAL NOT MEETING THESE LIMITS SHALL BE REMOVED OR REWORKED AS DIRECTED BY THE OWNER.
5. DOWELS MAY BE REQUIRED IN ACCORDANCE WITH THE PLANS AND DETAILS. FOR EACH LIMESTONE BLOCK THAT REQUIRES DOWELING, A 1.5 INCH DIAMETER HOLE SHALL BE DRILLED IN THE LAYOUT SHOWN ON THE DRAWINGS. NO ROCK HAMMERING WILL BE ALLOWED. DOWELS SHALL BE ANCHORED WITH EPOXY ADHESIVE (HILTI HIT-RE-500, OR EQUAL) IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION GUIDELINES.

DRY STACK LIMESTONE BOULDERS:

6. ROCK TYPE – THE LIMESTONE BOULDERS FOR USE IN THE PROPOSED SLOPE SYSTEMS SHALL BE NATIVE FROM THE EDWARDS FORMATION AND PRE-APPROVED BY THE ENGINEER PRIOR TO CONSTRUCTION. BLOCKS SHOULD BE IRREGULAR IN SHAPE ON ALL EDGES TO PROVIDE A NATURAL AESTHETIC. THE SURFACES AND EDGES TO BE VISIBLE AFTER PLACEMENT WILL BE NATURALLY ROUNDED FROM EXPOSURE AND SOLUTION AT THE ROCK SOURCE. NO EDGES OF THE BLOCKS SHALL BE SAW CUT. BOULDERS SHALL CONSIST OF SOLID ROCK WITHOUT EXCESSIVE FRACTURES, SPALLS, OR WEAK LAYERS.
7. SIZE OF BOULDER – LIMESTONE BOULDERS SHALL BE A 12 INCHES TALL BY 36 INCHES (MIN) WIDE BY 48 INCHES (MIN) LONG UNLESS OTHERWISE SHOWN ON THE PLANS. BLOCKS SHALL BE RELATIVELY UNIFORM IN HEIGHT (MINIMUM DIMENSION) AND WITHIN 20% OF THE DIMENSIONS SPECIFIED. THE LENGTH DIMENSION MAY VARY, BUT SHOULD BE GREATER THAN OR EQUAL TO THREE TIMES THE HEIGHT DIMENSION. THE TOP AND BOTTOM OF THE UNITS SHALL BE APPROXIMATELY PARALLEL SO THAT THEY ARE STACKABLE.
8. BOULDER INSTALLATION – BOULDERS SHALL BE SELECTED SO THAT ADJACENT BOULDERS FIT TIGHTLY TOGETHER AT THEIR ABUTTING VERTICAL FACE. ALL EDGES OF THE BOULDERS THAT ARE EXPOSED ON THE FRONT TOP AND SIDES WILL BE NATURALLY ROUNDED EDGES. ALL BOULDER COURSES SHALL BE LEVEL. A 6 OZ/SY NON-WOVEN GEOTEXTILE SHALL BE PLACED AT THE BACK FACE OF ALL BOULDER SOIL INTERFACES.

FILL MATERIALS:

9. STRUCTURAL BACKFILL. STRUCTURAL BACKFILL SHALL BE ON-SITE SOILS OR IMPORTED SOILS FREE FROM ROOTS, ORGANIC MATTER, DEBRIS, ROCKS LARGER THAN 2 INCHES, FREE WATER, AND OTHER MATERIALS DELETERIOUS TO COMPACTION. THE MATERIAL FROM ALL SOURCES SHALL CLASSIFY UNDER THE UNIFIED SOIL CLASSIFICATION SYSTEM (USCS) AS EITHER SP (POORLY GRADED SAND), SW (WELL GRADED SAND), SC (CLAYEY SAND), GP (POORLY GRADED GRAVEL), GW (WELL GRADED GRAVEL), SM (SILTY SAND), OR CL (LEAN CLAY). IN ALL CASES AND SOURCES, THE PLASTIC INDEX (PI), AS DEFINED IN ACCORDANCE WITH ASTM D4318, SHALL BE 25 OR LESS. FOR NON-PLASTIC SOILS (E.G. SILTY SAND) THE PERCENT PASSING THE NO. 200 SIEVE SHALL BE LESS THAN 25 PERCENT PER ASTM D-1140.
 10. COMPACTED CONTROLLED FILL - COMPACTED CONTROLLED FILL SHALL BE ON-SITE SOILS OR IMPORTED SOILS IN CONFORMANCE WITH COA STANDARD SPECIFICATION 1325 EMBANKMENT.
 11. CONTROLLED LOW STRENGTH MATERIAL (CLSM) SHALL CONFORM TO COA STANDARD SPECIFICATION 4025 CONTROLLED LOW STRENGTH MATERIAL.
 12. TOPSOIL - SELECT TOPSOIL IN THE FIRST 24-INCHES HORIZONTALLY FROM THE FACE OF THE MSE SYSTEM AND THE UPPER 6" OF EMBANKMENT SHALL CONFORM TO SALVAGING AND PLACING TOPSOIL REQUIREMENTS IN THE LANDSCAPE PLAN.
 13. CHANNEL SUBSTRATE - SUBSTRATE SHALL BE PRESELECTED BY COA WATERSHED STAFF AND SHALL CONSIST OF GRAVELS, COBBLES, AND BOULDERS.
 14. COMPACTED CLAY LINER - TBD
- MISCELLANEOUS MATERIALS:
15. DOWEL - REINFORCING STEEL SHALL BE #8 BARS AND SHALL CONFORM TO COA STANDARD SPECIFICATION 406S REINFORCING STEEL.
 16. TRACER TAPE SHALL BE A MINIMUM 5.0 MIL OVERALL THICKNESS, DOUBLE-LAMINATED, PERMANENTLY BOLD, BLACK- LETTERED UNDERGROUND DETECTABLE TAPE AS MANUFACTURED BY PRO-LINE SAFETY PRODUCTS CO., UNITED SAFETY AUTHORITY OR EQUAL.
 17. EPOXY ADHESIVE SHALL BE HILTI HIT-RE-500, OR APPROVED EQUAL.
 18. GEOTEXTILE FOR USE ALONG CUT BANKS, FOOTING ELEMENTS, AND ENCAPSULATING THE GRAVEL BACKFILL SHALL BE 6 OZ/SY NON-WOVEN GEOTEXTILE PER CITY OF AUSTIN SPECIFICATION 620S - FILTER FABRIC. GEOTEXTILES SHALL POSSESS THE FOLLOWING MINIMUM PROPERTIES: FABRIC WEIGHT: 6 OZ/SY; GRAB TENSILE STRENGTH (ASTM D4632): 150 LBS; WATER FLOW RATE (ASTM D4491): 110 GPM/SF.

MISCELLANEOUS MATERIALS:

15. DOWEL – REINFORCING STEEL SHALL BE #8 BARS AND SHALL CONFORM TO COA STANDARD SPECIFICATION 406S REINFORCING STEEL
16. TRACER TAPE SHALL BE A MINIMUM 5.0 MIL OVERALL THICKNESS, DOUBLE-LAMINATED, PERMANENTLY BOLD, BLACK- LETTERED UNDERGROUND DETECTABLE TAPE AS MANUFACTURED BY PRO-LINE SAFETY PRODUCTS CO., LIMITED SAFETY AUTHORITY OR EQUAL.
17. EPOXY ADHESIVE SHALL MEET HILTI HIT RE-500C OR EQUIV. APPROVED EQUAL.
18. GEOTEXTILE FOR USE ALONG CUT BANKS, FOOTING EASEMENTS, AND ENCAPSULATING THE GRAVEL BACKFILL SHALL BE 6 OZ/SY NON-WOVEN GEOTEXTILE PER CITY OF AUSTIN SPECIFICATION 620S – FILTER FABRIC. GEOTEXTILES SHALL POSSESS THE FOLLOWING MINIMUM PROPERTIES: FABRIC WEIGHT: 6 OZ/SY; GRAB TENSILE STRENGTH (ASTM D4632): 150 LBS; WATER FLOW RATE (ASTM D4491): 110 GPM/SF.

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ELIZA SPRING OUTLET DAYLIGHTING

Austin, Texas

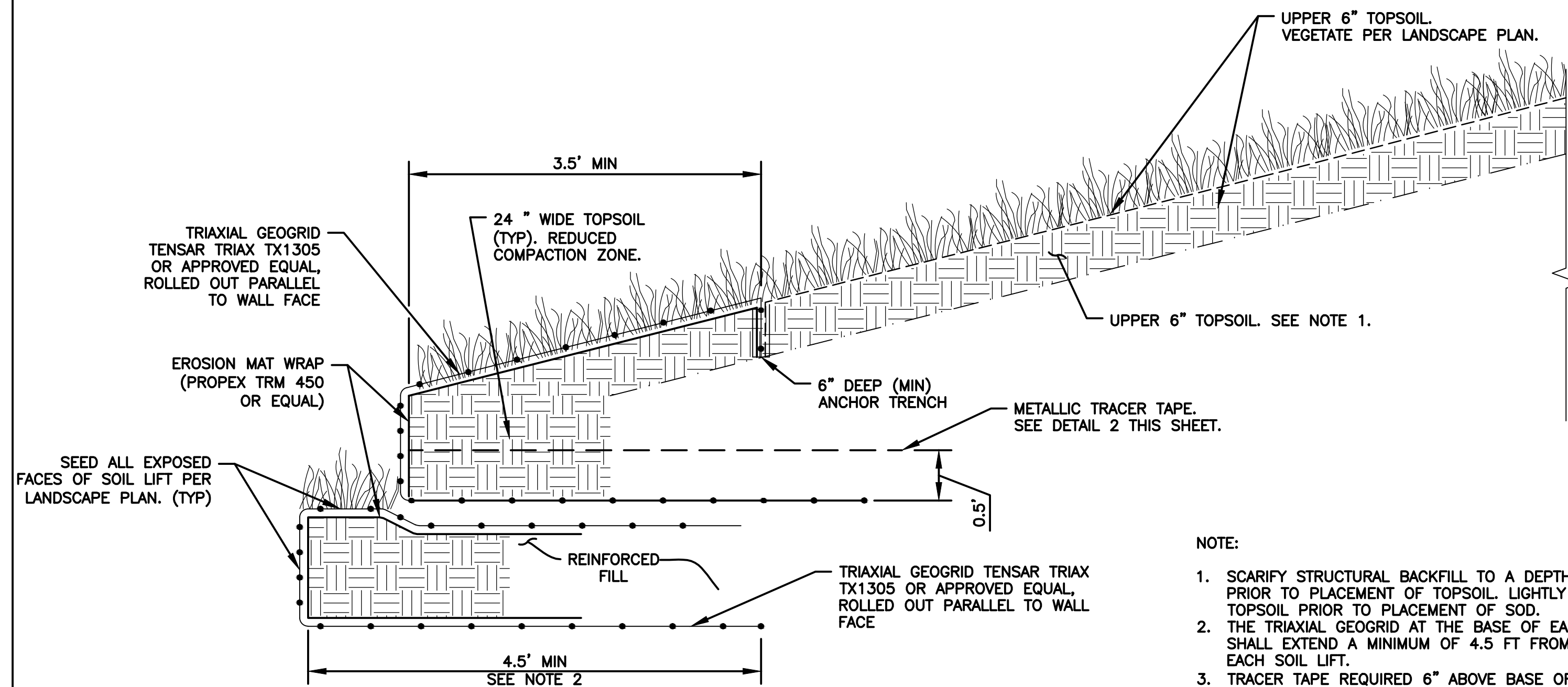
TYPICAL CHANNEL SECTIONS W/ SLOPE SYSTEM DETAILS



FILENAME	C2.3.DWG
SCALE	1"=2'

SHEET

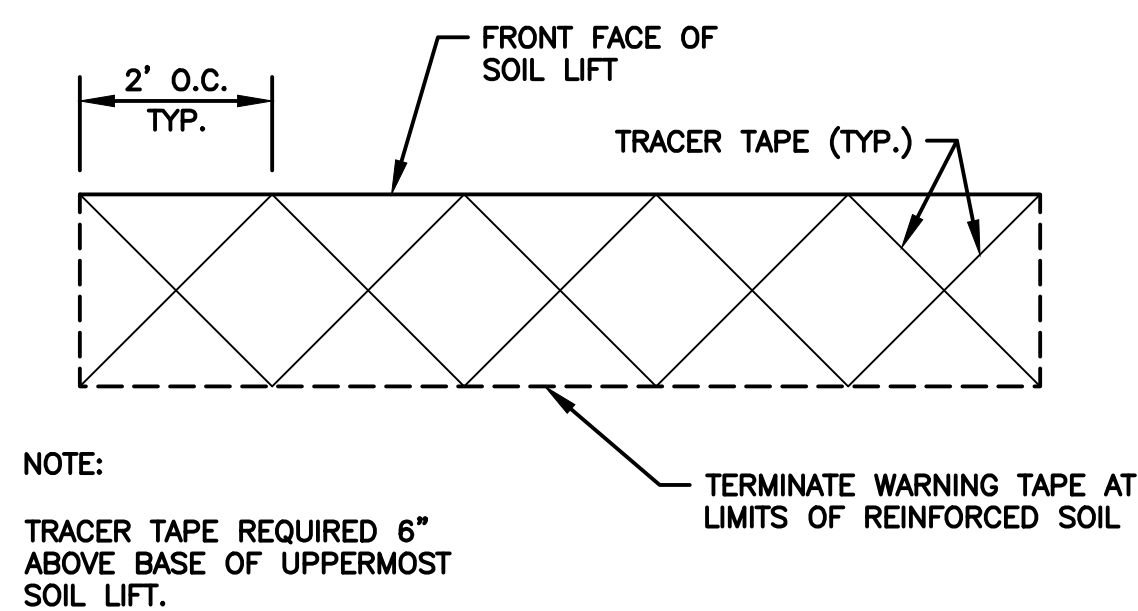
C2.3



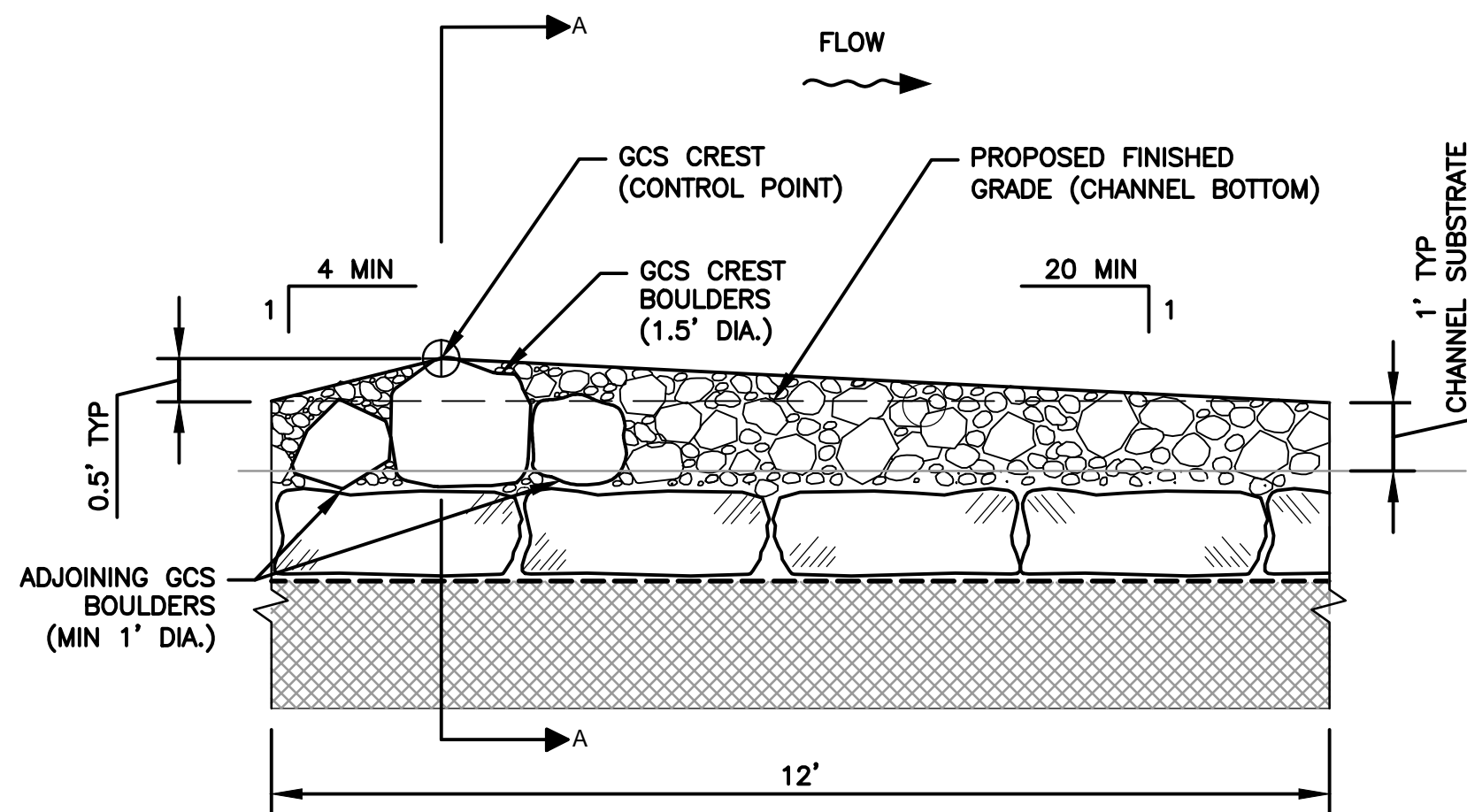
NOTE:

1. SCARIFY STRUCTURAL BACKFILL TO A DEPTH OF 3 INCHES PRIOR TO PLACEMENT OF TOPSOIL. LIGHTLY COMPACT TOPSOIL PRIOR TO PLACEMENT OF SOD.
2. THE TRIAXIAL GEOGRID AT THE BASE OF EACH SOIL LIFT SHALL EXTEND A MINIMUM OF 4.5 FT FROM THE FACE OF EACH SOIL LIFT.
3. TRACER TAPE REQUIRED 6" ABOVE BASE OF UPPERMOST SOIL LIFT.

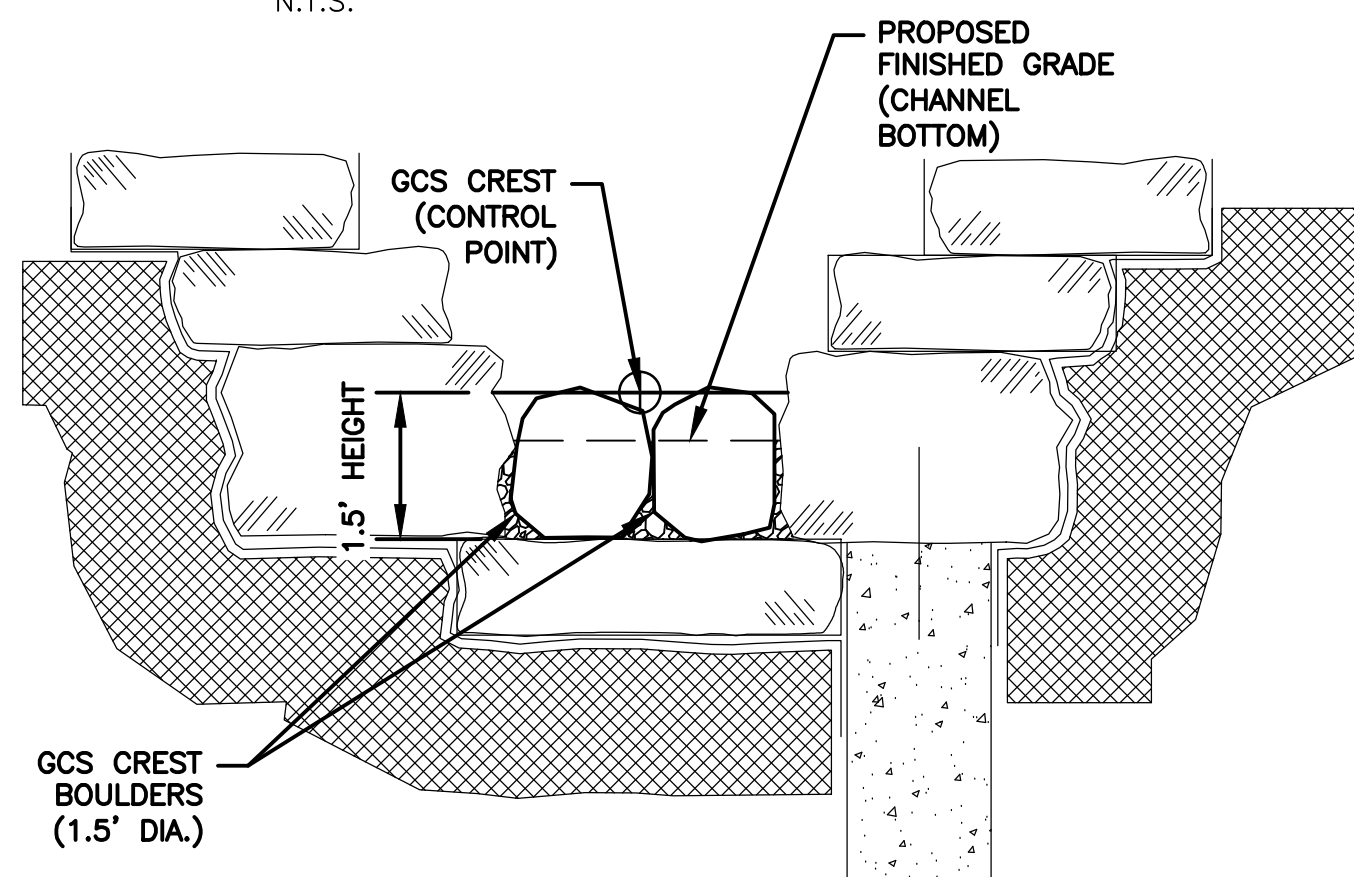
1
—
SCALE: 1"=1'

SOIL LIFT AND TOP SLOPE OF MSE STRUCTURE DETAIL

2
—
1"=2'

METALLIC TRACER TAPE PARTIAL PLAN

N.T.S.

GRADE CONTROL PROFILE

N.T.S.

SECTION A-A

GRADE CONTROL NOTES:

1. PLAN: BUILD GRADE CONTROL STRUCTURE (GCS) TO EXTEND ACROSS BASE OF CHANNEL WITH LARGEST DIAMETER BOULDERS AT THE CREST LINE AND REDUCE SIZES PROGRESSIVELY UPSTREAM AND DOWNSTREAM.
2. PROFILE: CONSTRUCT DOWNSTREAM FACE OF RIFFLE AT APPROXIMATELY 20H:1V AND UPSTREAM FACE AT APPROXIMATELY 4H:1V SLOPE.
3. GCS BOULDERS ARE TO BE PRESELECTED AND PREAPPROVED BY OWNER AND ENGINEER PRIOR TO CONSTRUCTION.
4. THE REPRESENTATIVE DIAMETER OF EACH GCS CREST BOULDER SHALL BE 1.5 FT. ADDITIONAL BOULDERS (MIN 1' DIA.) SHALL ABUT THE DOWNSTREAM AND UPSTREAM FACES OF THE GCS BOULDERS.
5. HEIGHT OF EACH GCS SHALL BE 6 INCHES ABOVE PROPOSED FINISHED GRADE OF CHANNEL.
6. GCS CREST BOULDERS SHALL EXTEND AND REST SOUNDLY ON BOULDER LAYER AT BASE OF CHANNEL SUBSTRATE.

3
—
N.T.S.

GRADE CONTROL STRUCTURE (GCS) DETAIL**HDR**HDR Engineering, Inc.
Firm Registration No. 7544401 WEST GATE BLVD., SUITE 400
AUSTIN, TX 78745
PHONE# (512) 912-8100
FAX# (512) 912-5158

A	4/24/2014	60% DRAFT FOR REVIEW
ISSUE	DATE	DESCRIPTION

PROJECT MANAGER	S. MUCHARD
DESIGNED BY	E. STEWART
DRAWN BY	C. AMARAL
CHECKED BY	C. PARKER
DATE	JANUARY 2014
PROJECT NUMBER	220162

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DATE: JANUARY 24, 2014
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**ELIZA SPRING
OUTLET DAYLIGHTING**

Austin, Texas

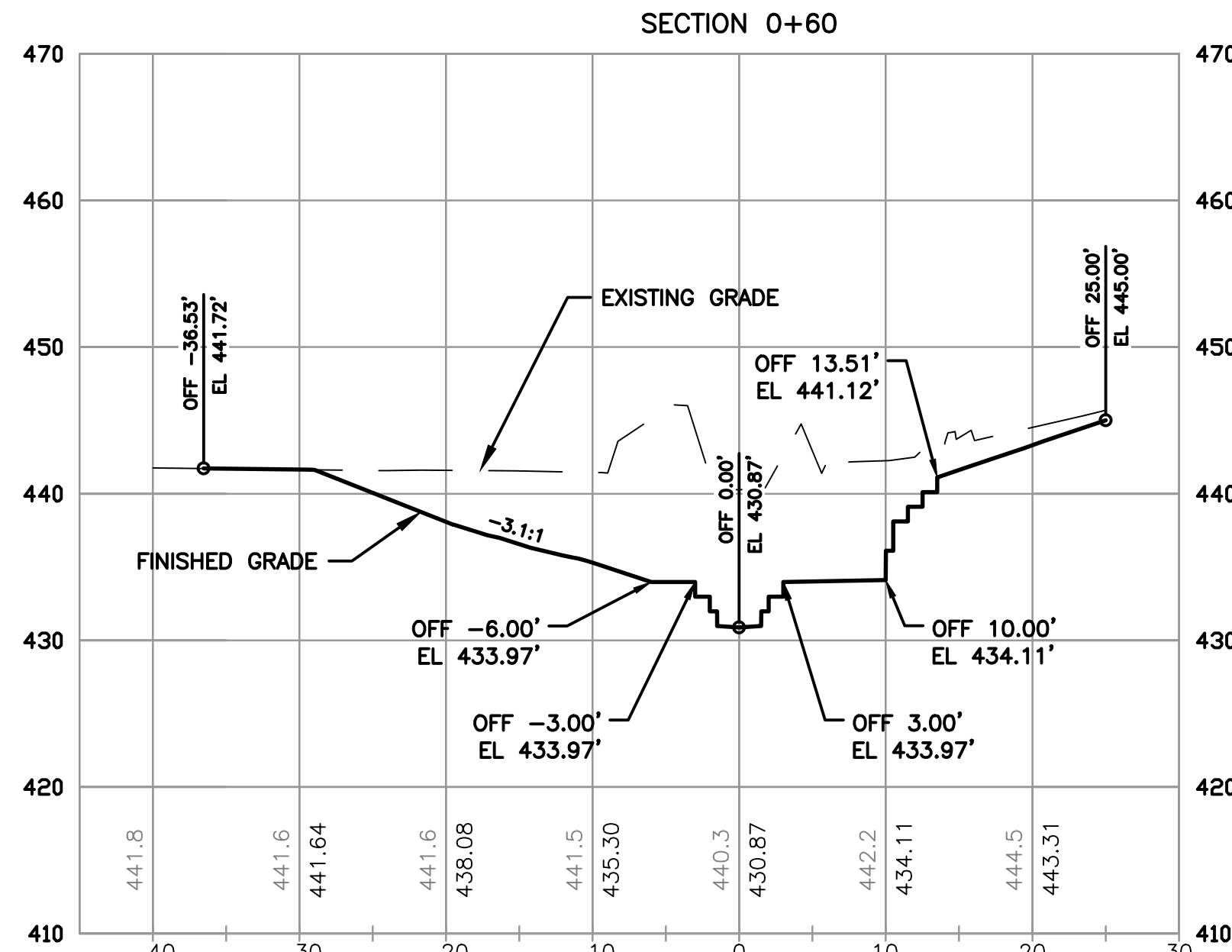
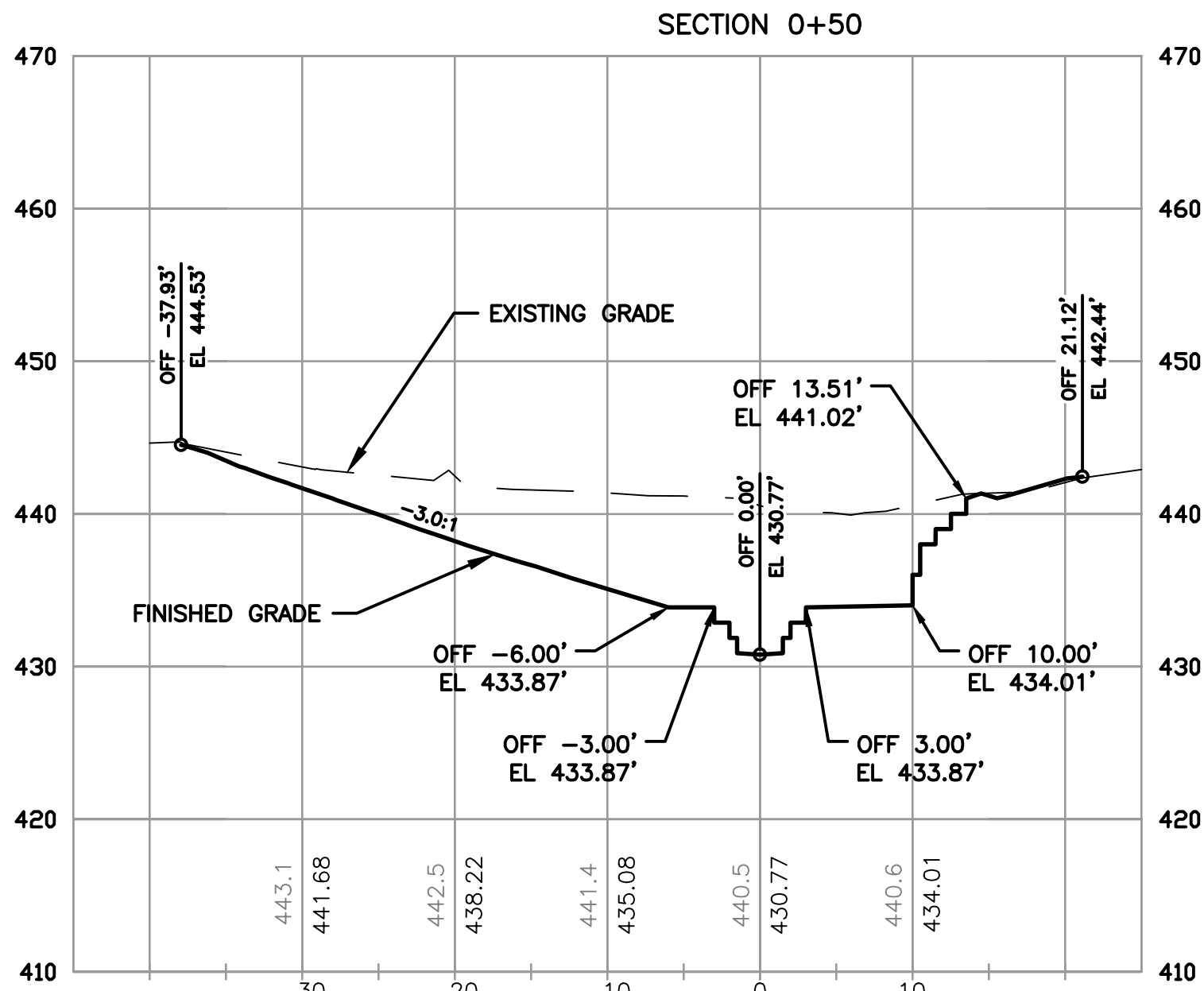
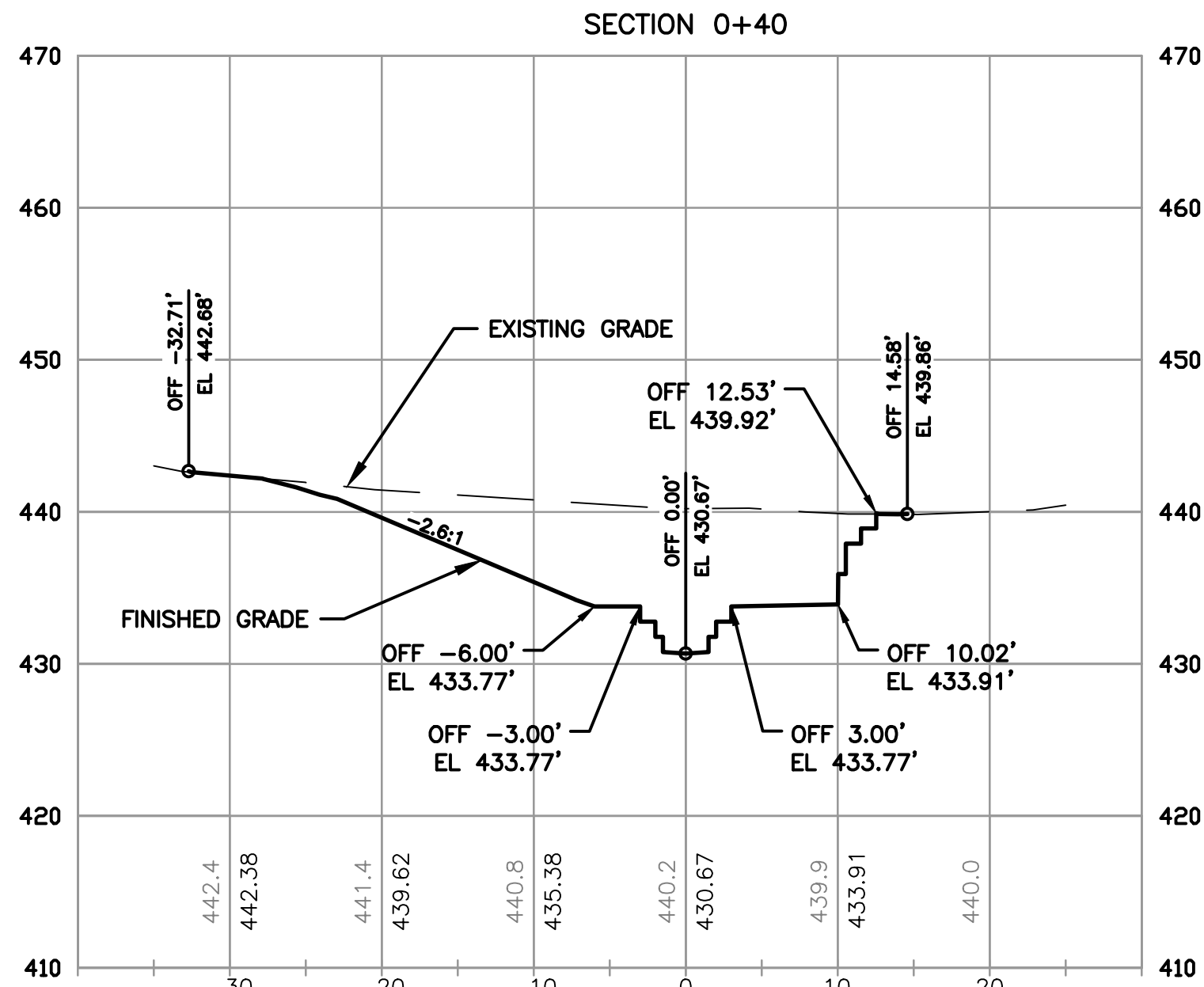
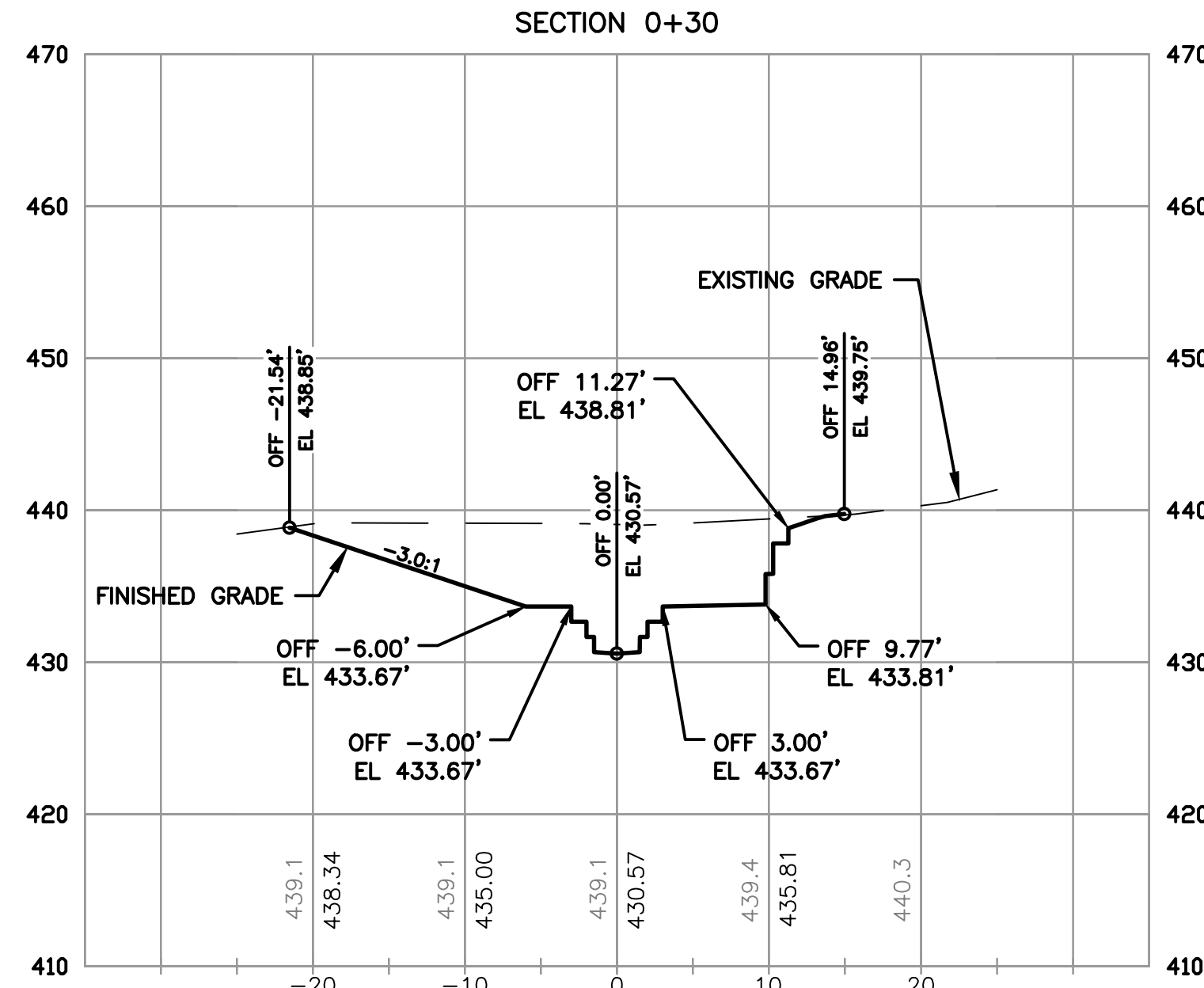
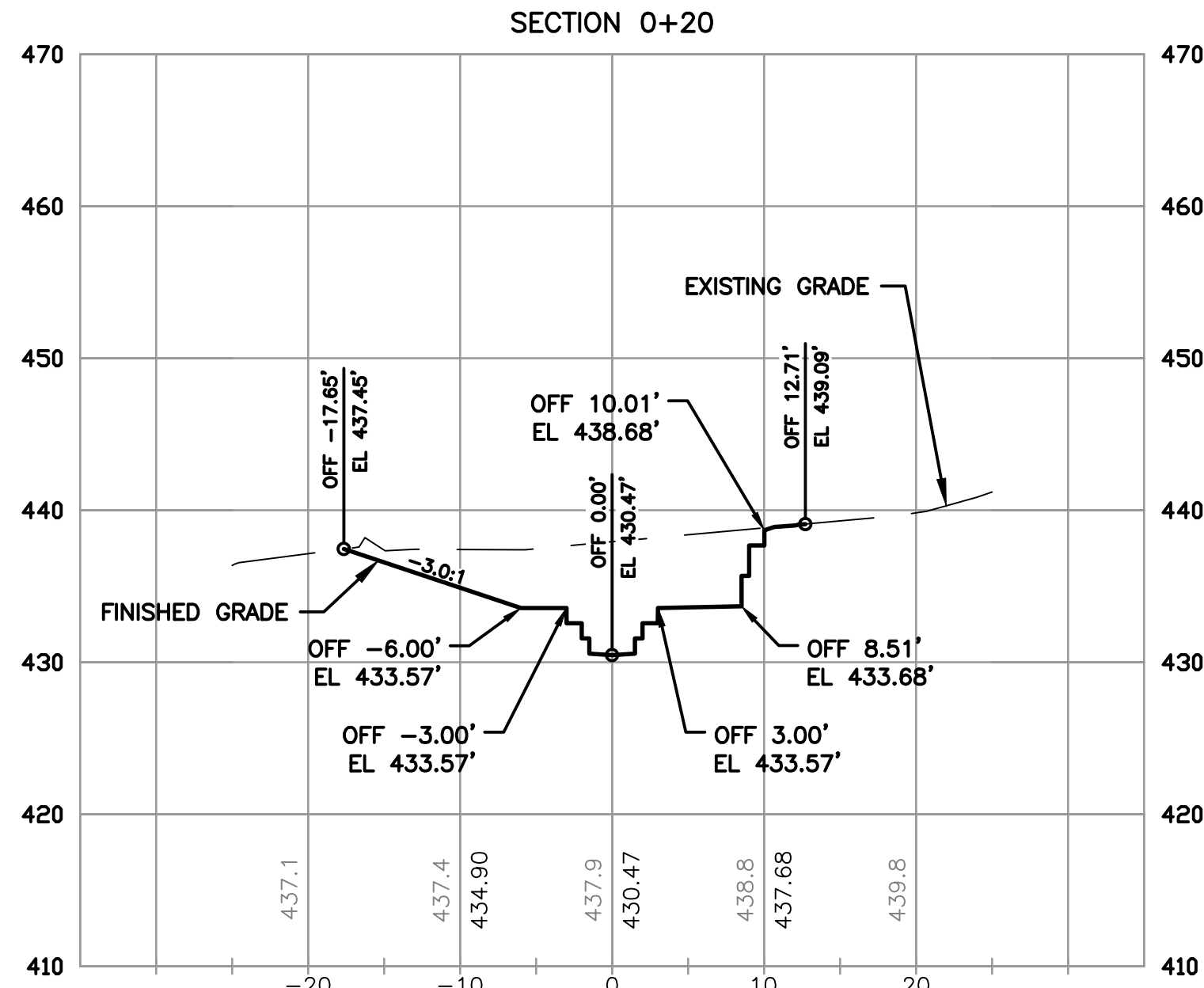
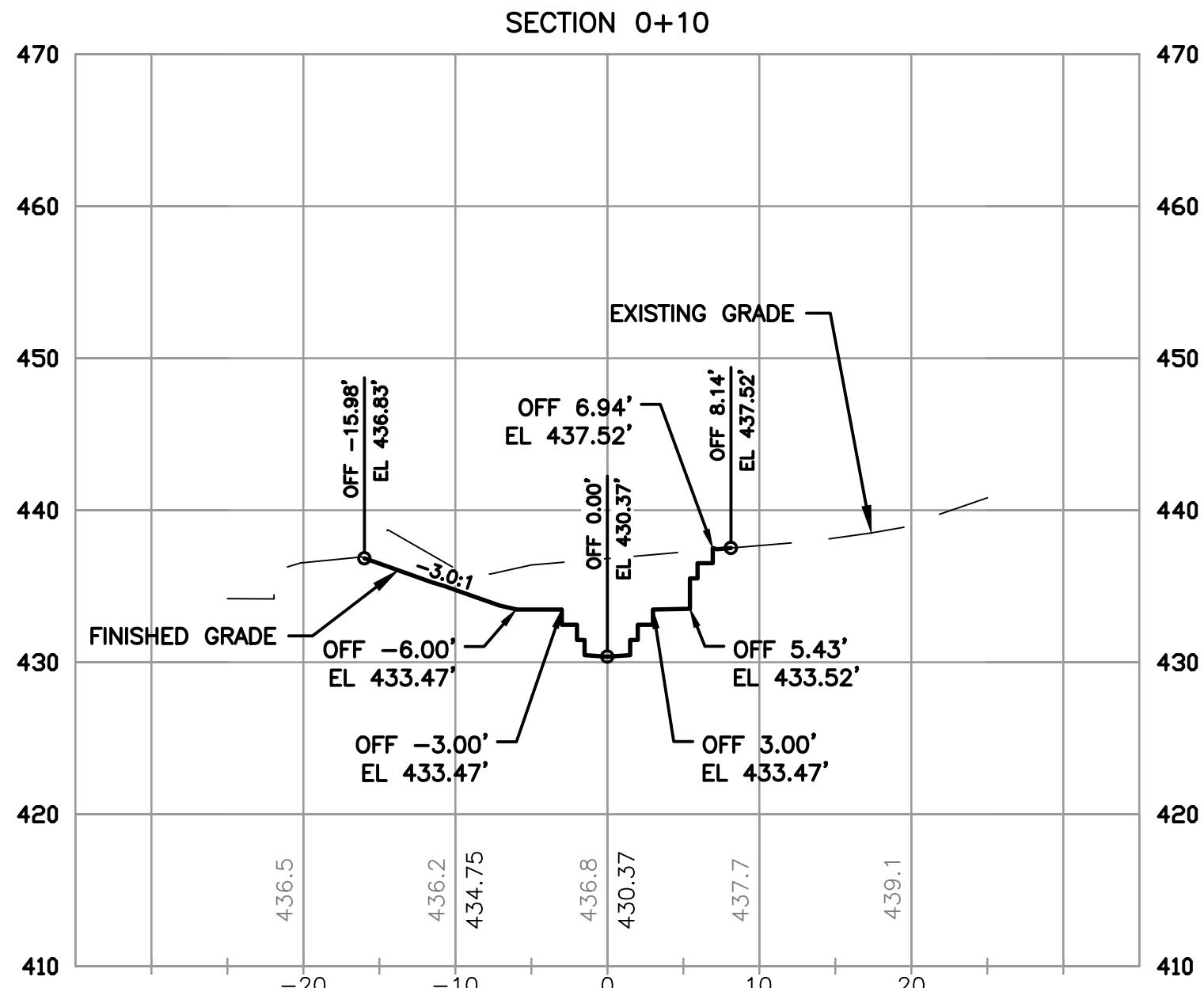
MISC. CHANNEL DETAILS

0 1" 2"

FILENAME C2.3.DWG
SCALE AS NOTED

SHEET

C2.4



HDR Engineering, Inc.
Firm Registration No. 754
4401 WEST GATE BLVD., SUITE 400
AUSTIN, TX 78745
PHONE# (512) 912-8100
FAX# (512) 912-5198

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DATE	JANUARY 2014
PROJECT NUMBER	220162

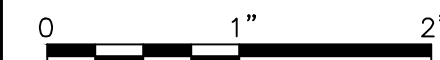
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ELIZA SPRING OUTLET DAYLIGHTING

Austin, Texas

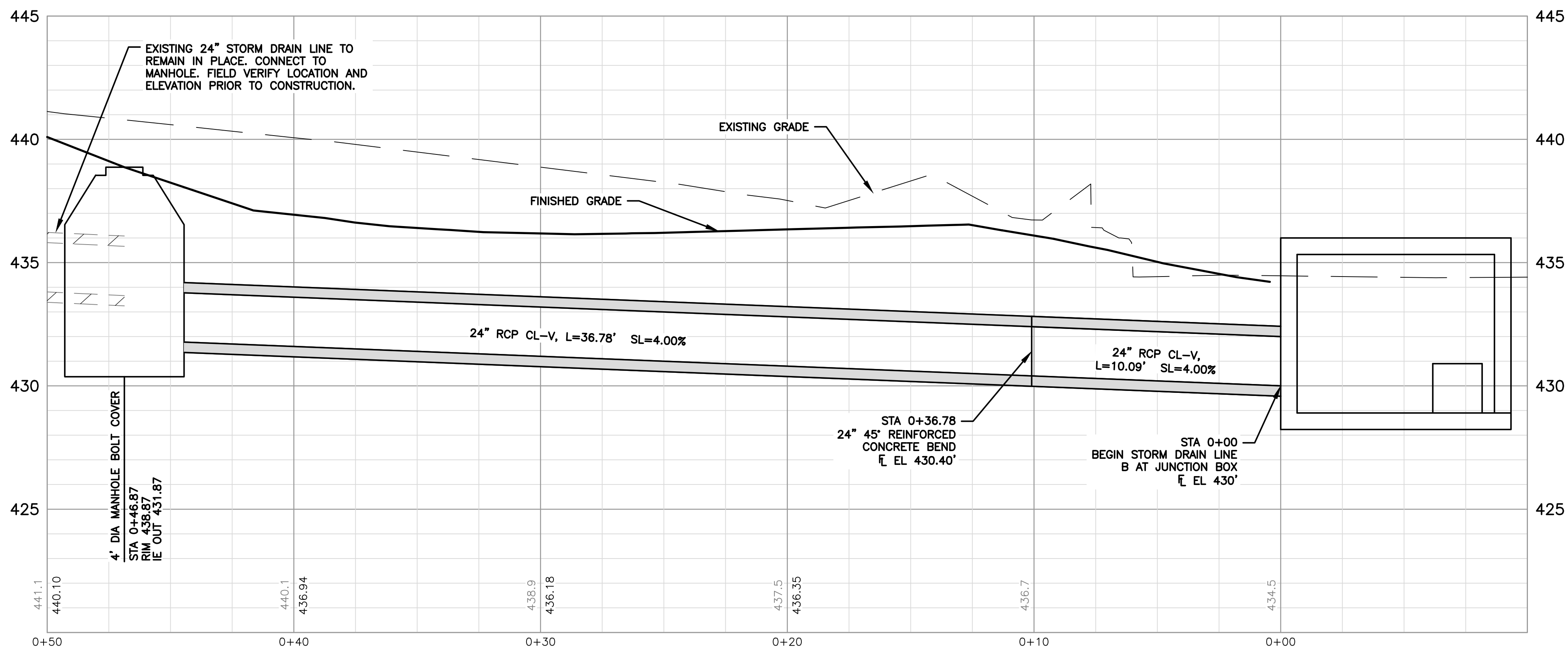
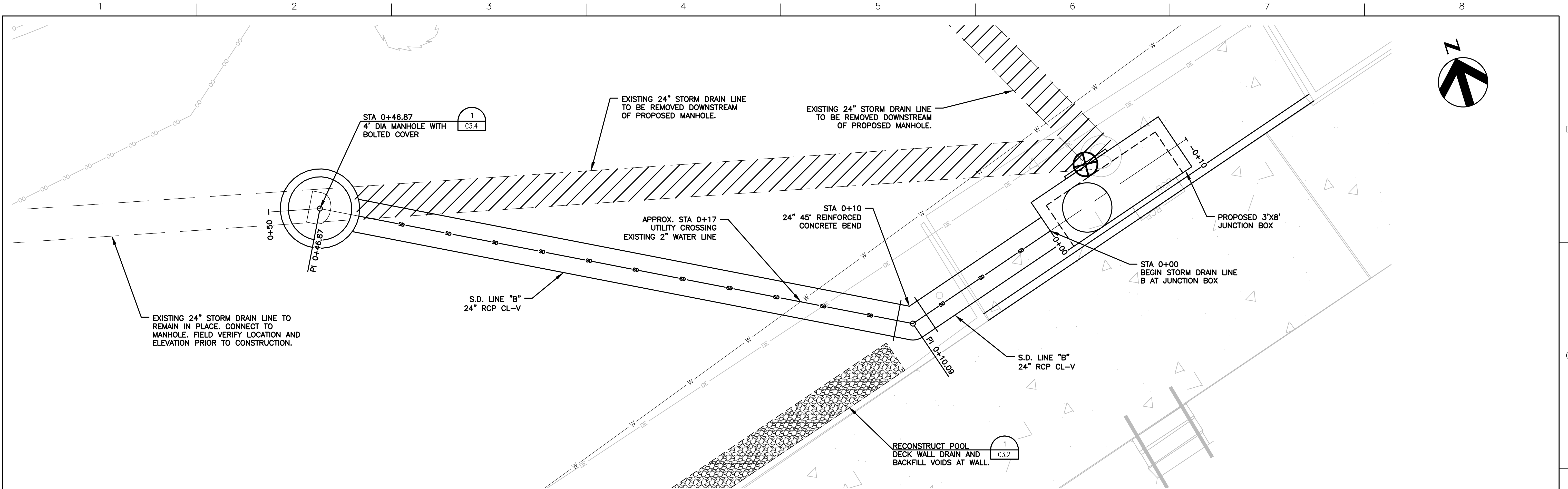
CROSS SECTIONS



FILENAME	C2.5.DWG
SCALE	1" = 10'

SHEET

C2.5



- CONTRACTOR NOTES:**
- EXISTING UNDERGROUND AND OVERHEAD UTILITIES IN VICINITY. CONTRACTOR TO CONTACT UTILITY COMPANIES PRIOR TO CONSTRUCTION. CONTRACTOR TO FIELD VERIFY EXISTING UTILITY LOCATIONS AND DEPTH PRIOR TO BEGINNING CONSTRUCTION.
 - CONTRACTOR SHALL CONSIDER PROPOSED UTILITY IMPROVEMENTS AND PROVIDE ADEQUATE HORIZONTAL AND VERTICAL CLEARANCE DURING INSTALLATION OF ALL UTILITY INFRASTRUCTURE.



HDR Engineering, Inc.
Firm Registration No. 754
4401 WEST GATE BLVD., SUITE 400
AUSTIN, TX 78745
PHONE# (512) 912-8100
FAX# (512) 912-5158

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CHECKED BY	C. PARKER
DATE	JANUARY 2014
PROJECT NUMBER	220162

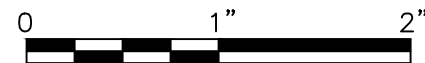
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ELIZA SPRING OUTLET DAYLIGHTING

Austin, Texas

STORM DRAIN LINE "B" PLAN & PROFILE



FILENAME C3.3.DWG
SCALE 1"=3'

SHEET

C3.3

